

# Common Management Services Alan Gary

19 January 1995

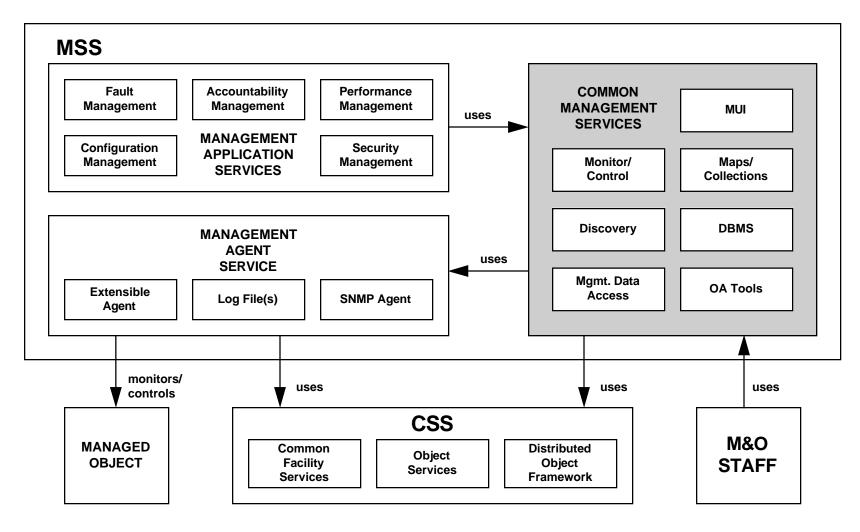
## Common Management Services Roadmap



- Release Capabilities
- Management Framework
  - Management User Interface (MUI)
  - Maps/Collection
  - Monitor/Control
  - Discovery
- Management Data Access
- DataBase Management System (DBMS)
- Summary



#### **MSS Subsystem Design**



# Common Management Services Release Capabilities



IR-1	Release A
<ul> <li>System Management</li> <li>collect performance statistics</li> <li>Ad Hoc reporting</li> <li>logging system events</li> </ul>	<ul> <li>System Management         <ul> <li>collect performance statistics</li> <li>Ad Hoc reporting</li> <li>logging system events (enhanced)</li> <li>collect audit information</li> <li>monitor applications</li> <li>monitor algorithms</li> <li>monitor ECS Hosts</li> <li>display system status</li> </ul> </li> </ul>
<ul> <li>Network Management</li> <li>logging network events</li> <li>monitor network devices</li> <li>display network status</li> </ul>	<ul> <li>Network Management</li> <li>logging network events</li> <li>monitor network devices</li> <li>display network status</li> </ul>

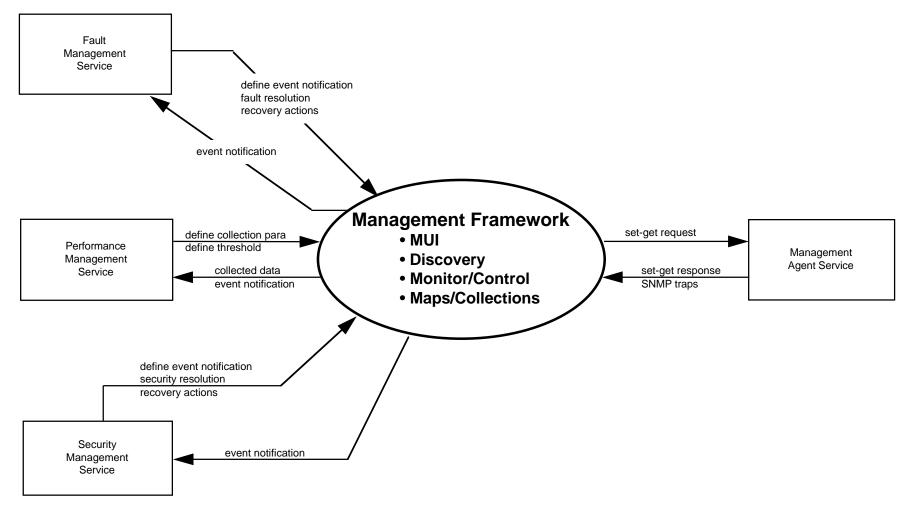
## Common Management Services Roadmap



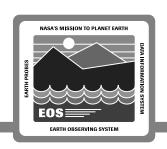
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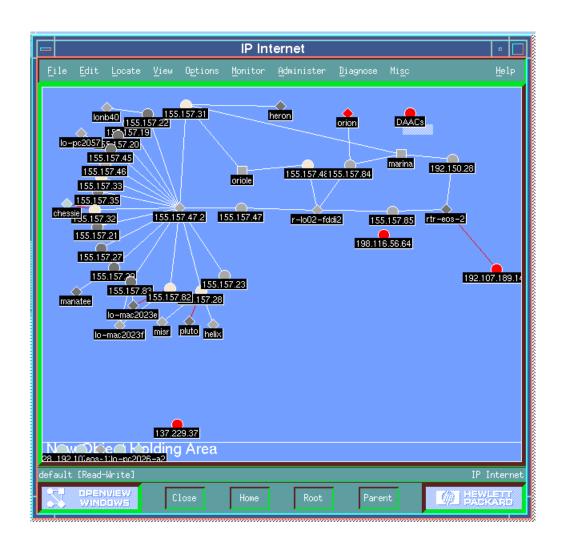
### Management Framework Context



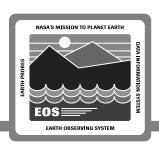


## Management Framework Maps & Symbols



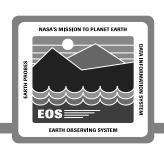


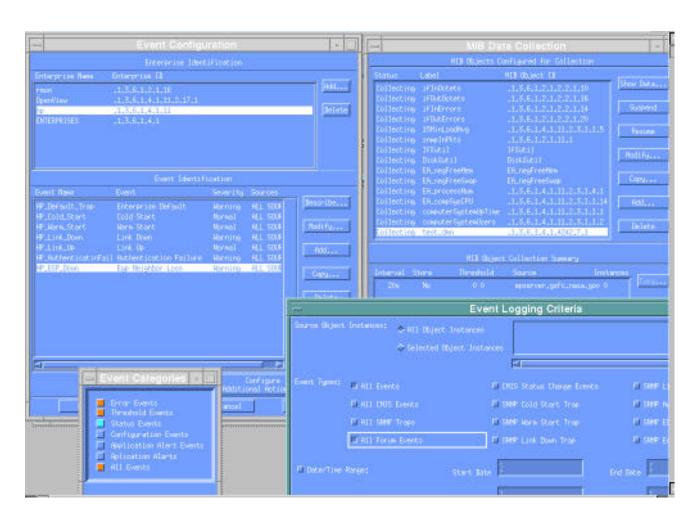
# Management Framework Hierarchical Relationship



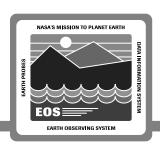


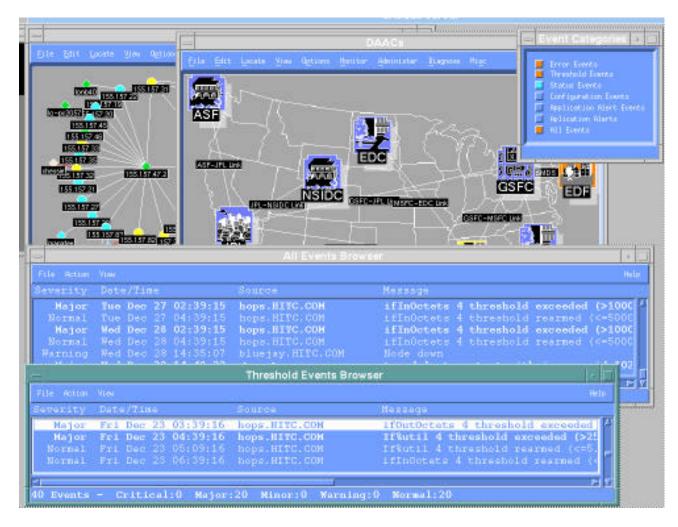
# Management Framework Configuration





#### Management Framework Event Browser



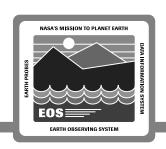


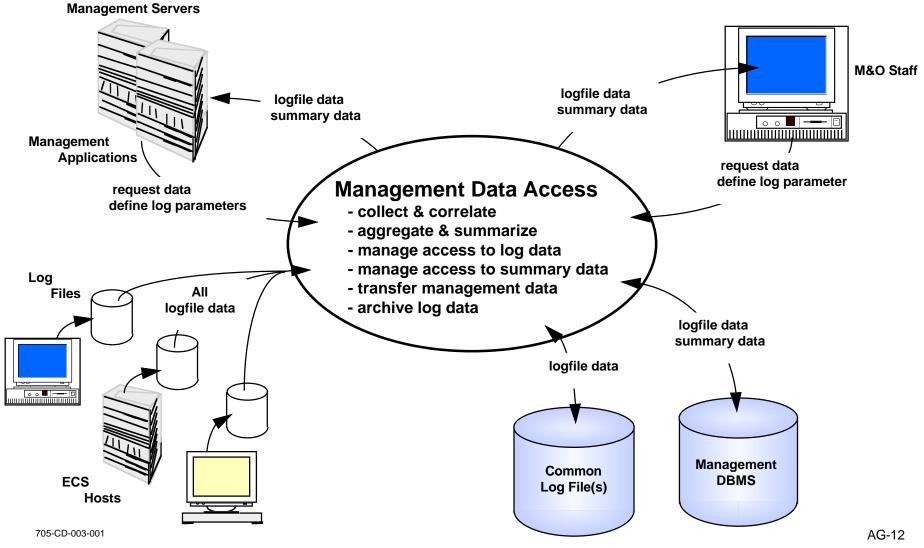
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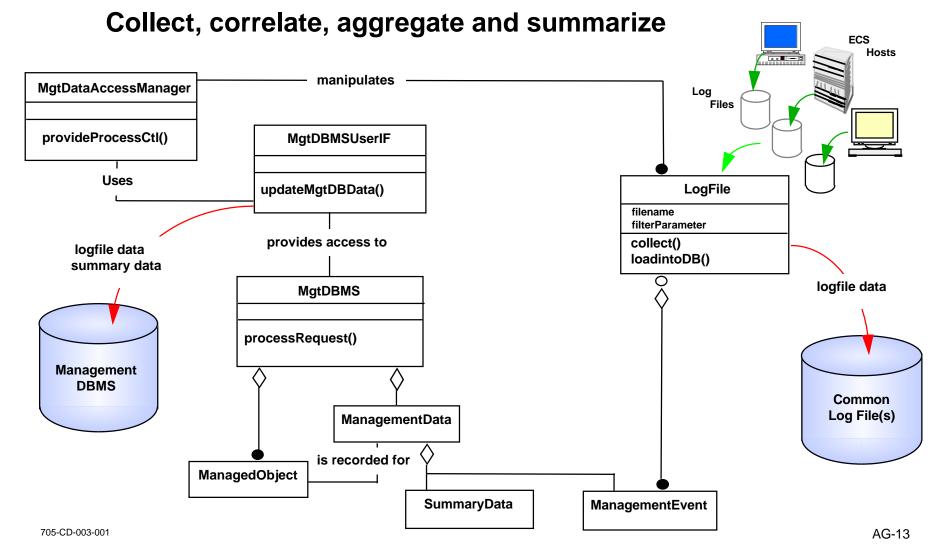
### Management Data Access Context





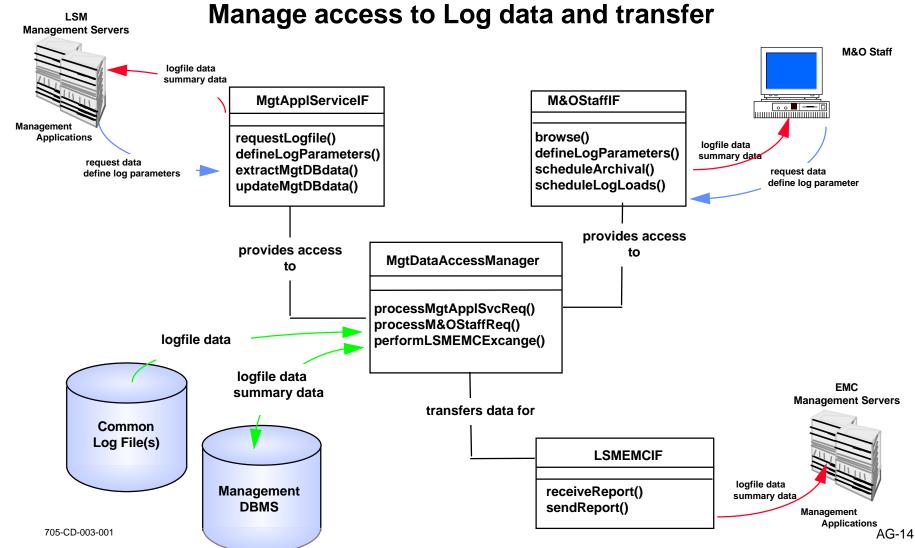
# Management Data Access Design Decomposition (part 1)





# Management Data Access Design Decomposition (part 2)





### Management Data Access Scenario



#### **Mgt Appl**

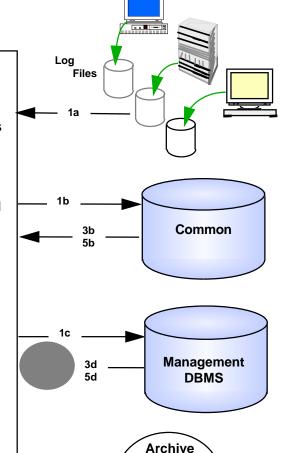
- 2. REQUEST log data
- a. Mgt Appl sends a request to MDA for log file data.
- b. Mgt Appl receives log file data and/or summary data from MDA
- c. Mgt Appl performs required analysis

#### **M&O Staff**

- 4. REQUEST log data
- a. M&O Staff sends a request to MDA for log file data.
- b. M&O Staff receives log file data and/or summary data from MDA

#### Mgt Data Access

- 1. COLLECT & LOAD Database
- a. Using the parameters defined in log ctr config, MDA reads, correlates, filters, aggregates and/or summarizes the collected data and events in the log file(s).
- b. The collected & correlate log files are stored in a common log file
- c. The resulting summary data is loaded into the DBMS
- 3. PROCESS Mgt Appl Request
  - a. MDA validates request
  - b. MDA reads log file data.
  - c. Log file data maybe filtered prior to sending to the Mgt Appl
  - d. If request includes summary data, MDA extracts data from DBMS
  - e. Requested data is sent to the Mgt Appl for processing.
- 5. PROCESS M&O Staff request
  - a.-e. Same as 3.
- 6. ARCHIVE log file
  - a. Using the parameters defined in log ctr config, MDA schedule the archival of log file data.





### Common Management Services Roadmap



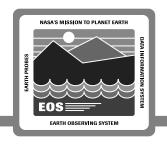
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#### **Management DBMS**

#### **Database Management System supports**

- Import of log file data
- Query and browse capability
- Generate summaries, aggregations, and statistics
- Trend analysis, correlation, and planning
- Report generation
  - standard predefined and preformatted output
  - ad hoc reporting

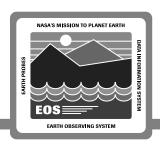


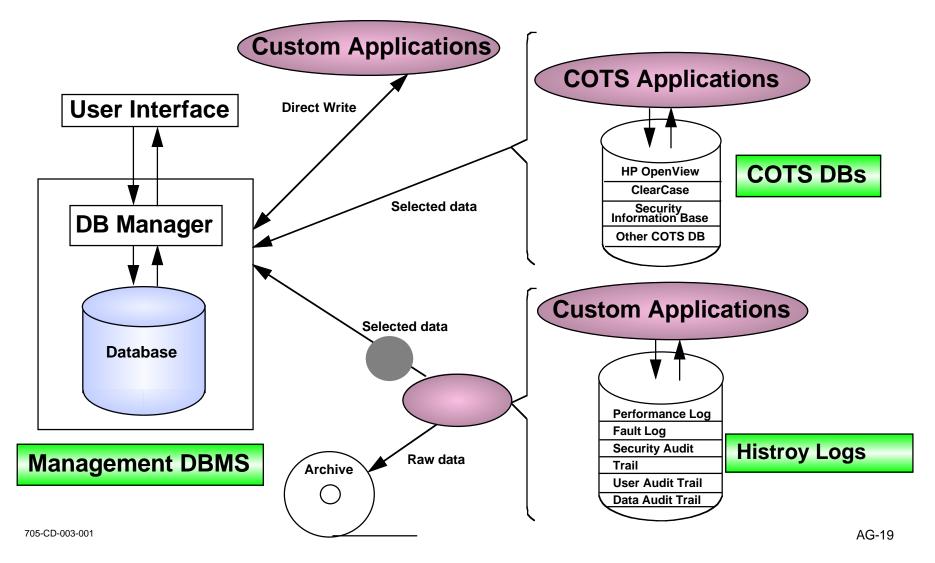
#### **Management Data at Sites**

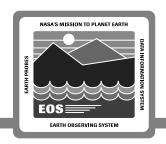
#### Three major types of data stores:

- Log files
  - Flat files (e.g. history log) containing large volume of raw data collected by COTS and/or MSS managed applications
- COTS proprietary data stores, e.g. HP-OpenView, ClearCase
  - accessed via a COTS API
  - data export
- Management DBMS data stores
  - selected log file data
  - aggregated and summarized log file data
  - ECS custom applications maintained data,
     e.g. SW CM-Baseline Mgmt

#### Management Data at Sites (cont.)





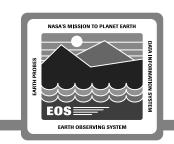


#### **Management Data at SMC**

#### Management data provided to SMC

- Selected log file data
- Summary data
- Remote access to LSM management DBMS
- Hardcopy reports

# Common Management Services Summary



Service	Key Technology Selection	Migration and Evolution
Management Framework	- SNMP based Framework - OSF/OMG standards based - HP-OpenView selected	- SNMPv2 - CMIP - RMON - CORBA
Management Data Access	- DCE RPCs	- OODCE
Management Database	- Relational DBMS	